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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,778	07/28/2006	Hajime Mackawa	MAT-8872US	9923
53473	7590	05/27/2010		
RATNERPRESTIA P.O. BOX 980 VALLEY FORGE, PA 19482			EXAMINER BENOIT, ESTHER	
			ART UNIT 2442	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/587,778

Applicant(s)

MAEKAWA ET AL.

Examiner

ESTHER BENOIT

Art Unit

2442

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/22)
Paper No(s)/Mail Date 3/18/2010, 5/19/2010
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendments

1. This Action is in response to a Request for Continued Examination filed on March 1, 2010. Claims 33, 42, and 51 have been amended. Claim 59 is newly added. Claims 33-59 are pending in this application.

Response to Arguments

2. Applicant's arguments, see Remarks, filed 2/16/2010, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of O'Toole, Jr. et al. (US 7,673,048 B1), hereinafter O'Toole, in view of King (US 2002/0194292 A1).

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 42-58 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter. Claims 42 and 51 are drawn to a "unit" for performing the method steps. In light of the specification, the "unit" can be implemented as either hardware or software. Claims directed to software are not statutory and therefore not patentable. Claims 43-50 and 52-58 are rejected for being dependent on rejected claims 42 and 51 above.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 33, 35-36, 38-42, 44-45, 47-51, and 53-55 are rejected under 35 U.S.C. 102(e) as being anticipated by O'Toole, Jr. et al. (US 7,673,048 B1), hereinafter O'Toole.

With respect to claim 42, O'Toole discloses:

- a sustain data demand receiving unit for receiving a demand for sustain data transmitted from the data processing apparatus in order to sustain the tunnel communication between the data processing apparatus and the other data processing apparatus (Figure 1 and Col. 7, lines 51-58, *first tunnel connection is established between client device and destination device through a gateway*);
- a sustain data demand transmitting unit for transmitting the received demand for sustain data to a tunnel managing apparatus connected to the access apparatus through a communication line (Figure 4 and Col. 12,

lines 16-36, *tunnel manager 90 has the capability of IP routing between multiple tunnel connections*);

- a sustain data receiving unit for receiving a sustain data transmitted from the tunnel managing apparatus in response to the demand for sustain data (Col. 18, *tunnel manager intercepts tunnel connection request from client device and sends it to second gateway to establish a tunnel connection*);
- and a sustain data transmitting unit for transmitting the sustain data to the data processing apparatus (Col. 8, lines 9-18, *gateway device receives connection request from client device and transmits request to destination device to establish a tunnel connection*).
- wherein the sustain data indicates a connection time of the tunnel communication (Col. 15, lines 13-39, *connection profile is created based on travel time of data packet from gateway to destination device*)

With respect to claim 51, O'Toole discloses:

the access apparatus comprises:

- a first demand receiving unit for receiving a demand for transmission of sustain data regarding sustaining of the tunnel communication performed by the data processing apparatus, from the data processing apparatus in order to sustain the tunnel communication between the data processing

apparatus and the other data processing apparatus (Figure 1 and Col. 7, lines 51-58, *first tunnel connection is established between client device and destination device through a gateway*);

- a demand transmitting unit for transmitting the received demand for transmission concerned to the tunnel managing apparatus, in the case where the first demand receiving unit received the demand for transmission (Figure 4 and Col. 12, lines 16-36, *tunnel manager 90 has the capability of IP routing between multiple tunnel connections*);
- a sustain data receiving unit for receiving the sustain data transmitted from the tunnel managing apparatus in response to the demand for sustain data (Col. 18, *tunnel manager intercepts tunnel connection request from client device and sends it to second gateway to establish a tunnel connection*);
- a first sustain data transmitting unit for transmitting the sustain data concerned to the data processing apparatus, in the case where the sustain data receiving unit received the sustain data (Col. 8, lines 9-18, *gateway device receives connection request from client device and transmits request to destination device to establish a tunnel connection*).

the tunnel managing apparatus comprises:

- a tunnel communication data controlling unit for controlling tunnel communication data regarding the tunnel communication (Col. 18, *tunnel manager intercepts tunnel connection request from client device and sends it to second gateway to establish a tunnel connection*);
- a second demand receiving unit for receiving the demand for transmission transmitted from the access apparatus (Col. 18, *tunnel manager intercepts tunnel connection request from client device and sends it to second gateway to establish a tunnel connection*);
- and a second sustain data transmitting unit for transmitting the sustain data to the access apparatus based on the tunnel communication data, in the case where the second demand receiving unit received the demand for transmission (Col. 18, *tunnel manager sends connection request to second gateway to establish a tunnel connection*);

With respect to claim 33, the method of claim 33 is rejected for the same reasons as the apparatus of claim 42 above. Please see rejection above.

With respect to claims 35-36, 44-45, and 53, O'Toole discloses a tunnel control data receiving step, in which the access apparatus receives tunnel control data transmitted from the data processing apparatus; a tunnel communication data modification judging step, in which the access apparatus judges whether to modify the tunnel communication data or not; and a tunnel control data transmitting step, in which the access apparatus transmits the tunnel control data to the tunnel managing

apparatus, in the case where it judged that the tunnel communication data should be modified (Col. 8, lines 25-48, *based on gateway proximity to device for reduction of traffic or use of bandwidth, a second gateway of closer proximity may be used based on the determination of the first gateway*).

With respect to claim 38 and 47, O'Toole discloses the access apparatus executes the sustain data demand receiving step at prescribed time intervals (Col. 15, lines 13-39).

With respect to claim 39 and 48, O'Toole discloses an identifier registration step of registering identifier, in which the access apparatus identifies at least one of the addresses of tunnel communication, to be performed by the data processing apparatus and the data processing apparatus concerned, before executing the sustain data demand receiving step (Col. 9, lines 22-33).

With respect to claim 40, 49, and 54, O'Toole discloses the tunnel communication data modification judging step judges if the identifier for identifying the different data processing apparatus is registered in advance in the access apparatus or not and, in the case where such identifier is registered, executes the tunnel control data transmitting step (Col. 10, lines 6-27).

With respect to claim 41 and 50, O'Toole discloses the tunnel communication data is controlled by the tunnel managing apparatus, and is used for controlling the tunnel communication (Figure 4 and Col. 12, lines 16-36, *tunnel manager*).

With respect to claim 55, O'Toole discloses the tunnel control data is a data demanding modification of time when the data processing apparatus can perform the tunnel communication (Col. 8, lines 25-48, *based on gateway proximity to device for reduction of traffic or use of bandwidth, a second gateway of closer proximity may be used based on the determination of the first gateway*).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 34, 37, 43, 46, 52, and 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Toole, Jr. et al. (US 7,673,048 B1), hereinafter O'Toole, in view of King (US 2002/0194292 A1).

With respect to claim 34 and 43, O'Toole does not explicitly disclose the sustain data is used for the data processing apparatus to judge whether to cancel the tunnel communication or not.

However, King discloses the sustain data is used for the data processing apparatus to judge whether to cancel the tunnel communication or not (Figure 4-5 and ([0030], *if a time period allotted for tunnel*)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine the teachings of O'Toole with the teachings of King to determine when to cancel or terminate a tunnel connection, *because* it will allow for better security by provided only trusted and wanted communication to occur.

With respect to claim 37, 46, and 52, O'Toole discloses the tunnel communication data indicates, a data regarding time of the tunnel communication (Col. 15, lines 13-39), and a data regarding charging of the tunnel communication (Col. 18, lines 46-59)

O'Toole does not explicitly teach at least one of a data regarding the tunnel communication allow/disallow flag.

However, King discloses at least one of a data regarding the tunnel communication allow/disallow flag (Figure 4-5 and ([0030], *if a time period allotted for tunnel*)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine the teachings of O'Toole with the teachings of King to determine when to allow or disallow a tunnel connection, *because* it will allow for better security by provided only trusted and wanted communication to occur.

With respect to claim 56-58, O'Toole discloses the tunnel communication data indicates, a data regarding time of the tunnel communication (Col. 15, lines 13-39), and a data regarding charging of the tunnel communication (Col. 18, lines 46-59)

O'Toole does not explicitly teach at least one of a data regarding the tunnel communication allow/disallow flag.

However, King discloses at least one of a data regarding the tunnel communication allow/disallow flag (Figure 4-5 and ([0030], *if a time period allotted for tunnel*)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine the teachings of O'Toole with the teachings of King to determine when to allow or disallow a tunnel connection, *because* it will allow for better security by provided only trusted and wanted communication to occur.

With respect to claim 59, O'Toole discloses charge information for indicating a cost to be charged for tunnel communication (Col. 18, lines 46-59).

O'Toole does not explicitly disclose a tunnel communication allow/disallow flag for indicating whether the tunnel communication is allowed or not.

However, King discloses at least one of a data regarding the tunnel communication allow/disallow flag (Figure 4-5 and ([0030], *if a time period allotted for tunnel*)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine the teachings of O'Toole with the teachings of King to determine when to allow or disallow a tunnel connection, *because* it will allow for better security by provided only trusted and wanted communication to occur.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ESTHER BENOIT whose telephone number is (571)270-3807. The examiner can normally be reached on Monday through Friday between 7:30 a.m and 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Lee can be reached on 571-272-3967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

E.B.
May 19, 2010

/Philip C Lee/

Acting Supervisory Patent Examiner, Art Unit 2442

